

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Appln. No.: 10/759,285
Attorney Docket No.: Q79305

REMARKS

Claims 1, 2, 4-15 are all the claims pending in the application. Claims 9-15 have been newly added. New claims 9-15 are fully supported by the originally filed specification. No new matter has been added.

35 U.S.C. §103(a) Rejection - Claims 1, 2, 4 and 8

Claims 1, 2, 4 and 8 stand rejected under 35 U.S.C. § 103(a) as being allegedly anticipated by Takenaga in view of U.S. Patent No. 5,585,911 (Hattori et al.). In view of the following discussion, Applicant respectfully traverses the above rejection.

Independent claims 1 and 8 recite a “a second gear train for connecting only a developing device revolved and stopped at a developing position” and a “drive switching means for switching between said first gear train and said second gear train to connect either of them to said drive source.” As acknowledged by the Examiner, Takenaga teaches only a means for bringing a rotary unit in and out of engagement with a driving source. In Takenaga, there is no way to bring the driving source in and out of engagement with developing units. The Examiner asserts that Hattori teaches a drive switching means for connecting and disconnecting a developing device to a drive source and attempts to make up the deficiency of Takenaga by modifying it with Hattori. The Examiner asserts that the motivation to modify Takenaga with Hattori is that it is well known in the art to drive developing units only when in use.

First, Applicant disagrees with the Examiner’s assertion that it is well known in the art to drive developing units only when in use. Applicant requests that the Examiner supplement the record to specifically point out where the alleged motivation is found. As is discussed at MPEP

§2144.03, it is never appropriate for the Examiner to rely solely on “common knowledge” in the art without evidentiary support in the record as the principal evidence upon which the rejection is based.¹ Moreover, if the evidence of the alleged motivation or suggestion is not made of record, then it is impossible for the Applicant to fairly consider the merits of the rejection.

Further, even if it were well known in the art to drive developing units only when in use, that would be insufficient motivation to form the invention as set forth in claims 1 and 8. First, there is no teaching or suggestion in Takenaga or Hattori that a single drive source could be switched between being coupled to a first gear train and a second gear trains. In both Takenaga and Hattori only a single clutch, which the Examiner regards as a drive switching means, is connected to a single drive source. They both teach that a drive source can drive or not drive a particular gear train, however, neither teaches that a single drive source can be switched between two gear trains. The only motivation or suggestion that a single drive source can be switched between driving two different gear trains, and thus both a developing device and a rotary unit, comes from the present disclosure. To the extent that one would be motivated to combine

¹ The USPTO is held to a rigorous standard when trying to show that an invention would have been obvious in view of the combination of two or more references. See, In re Sang Su Lee, 61 USPQ2d 1430 (Fed. Cir. 2002), citing, e.g., In re Dembiczak, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”). In Lee, the Federal Circuit further emphasized that the “need for specificity pervades this authority.” (Lee at 1433 (citing In re Kotzab, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”))). The factual inquiry into whether to combine references “must be based on objective evidence of record.” Lee at 1433.

Takenaga and Hattori, the substantial weight of all the evidence proves that they would be motivated to include two drive sources.

The Examiner states that the driven-side clutch disk (26) of Takenaga reads on a drive switching means of the present invention. The clutch in Takenaga couples or decouples a shaft (6) to a drive source (28). Hattori also teaches a clutch (12) which is powered by a drive motor and which couples and decouples the drive motor to a drive shaft (15). Hattori does not teach or suggest that the clutch (12) that couples and decouples the gear train (G0-G8) for driving the developer subunits (2a-2d) could be connected to the same drive source that drives the rotary body (7). The clutches taught by Takenaga and Hattori are only appropriate for coupling and decoupling a drive source to a single shaft. Two of the clutches cannot be combined to switch from driving a rotary unit to driving a development unit. If the Hattori clutch were added to Takenaga, the clutch would need a separate drive source. The resulting device would have one drive source for each clutch and thus a separate drive source for driving each of a rotary unit and a developing device. Even if Takenaga and Hattori were combined, the resultant device would not meet the requirements of claims 1 and 8.

Further, Takenaga does not teach any way for any of the developing units (14, 15 and 16) to be selectively disconnected from the motor (28). As can be seen in Fig. 1, gears (14m, 15m and 16m) are always all in engagement with output gear (21). Therefore, the development units in Takenaga are all driven at the same time. Even if a clutch of Hattori could somehow be used in the Takenaga device, the clutch used in Hattori would either connect all of the gears (14m, 15m and 16m) of Takenaga to a drive source or none of them. The clutch would either connect

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the input shaft of Takenaga to the input gear or would not, but the input gear of Takenaga always meshes with each of the gears (14m, 15m and 16m) which drive the development units.

In view of the above arguments, Applicant respectfully requests that the Examiner withdraw the rejection of claims 1 and 8. Claims 2 and 4 depend from claim 1. Since claim 1 is allowable in view of the above arguments, claims 2 and 4 are allowable at least because of their dependency on claim 1. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of claims 2 and 4.

35 U.S.C. §103(a) Rejection - Claim 5

Claim (5/1) stands rejected as being allegedly anticipated by Takenaga in view of Hattori and further in view of U.S. Patent No. 5,585,911 (Ohno). As argued above, modifying Takenaga in view of Hattori is improper, and the result does not meet the express requirements of claim 1. Nothing in Ohno corrects the deficiencies of the Takenaga and Hattori combination discussed above. Even if all three of the references cited by the Examiner are considered by one of ordinary skill in the art, the combination would not teach or suggest all of the requirements of independent claim 1, and thus they certainly would not teach all of the requirements of dependent claim 5. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claim 5.

35 U.S.C. § 102(b) Rejection - Claim 6

Claim 6 stands rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Takenaga. Applicant has amended claim 6 to recite a “second gear that at least indirectly

connects only said developing device stopped at said predetermined position to said drive source to drive said developing device.” As the Examiner acknowledges, Takenaga does not disclose that a second gear train is ever out of engagement with the drive source. Therefore, claim 6 is patentable over Takenaga, and Applicant respectfully requests that the Examiner withdraw the rejection of claim 6 based on Takenaga.

Insofar as the 103(a) rejection of claims 1 and 8 may apply to amended claim 6, Applicants refer to the arguments above that there is no motivation to combine Takenaga and Hattori. Further, even if Takenaga and Hattori could be combined, the rotary unit and development device would require separate drive sources and all of the development units would be driven simultaneously.

35 U.S.C. §103(a) Rejection - Claim 7

Claim (7/6) stands rejected under 35 U.S.C. § 103(a) as being allegedly anticipated by Takenaga in view of Hattori. Applicant respectfully traverses the rejection of claim 7 in view of the following arguments.

First, as discussed above, the combined teaching and suggestion of Takenaga and Hattori, even taken together, lack the requirements in claim 6, and therefore also lack the requirements of claim 7. Also, as the Examiner acknowledges, Takenaga does not disclose a drive source which alternately drives a first gear and a second gear. The Examiner attempts to correct the deficiency in Takenaga by citing Fig. 14 of Hattori. Hattori, however, specifically teaches driving a rotary body and a drive source simultaneously at some times. It specifically teaches away from alternately driving the rotary body and drive source as shown in Fig. 14. The Examiner states

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that the motivation to modify as taught by Fig. 14 is well known in the art, but provides no support for this statement. Applicant requests that the Examiner supplement the record to specifically point out where the alleged motivation is found. As is discussed at MPEP §2144.03, it is never appropriate for the Examiner to rely solely on “common knowledge” in the art without evidentiary support in the record as the principal evidence upon which the rejection is based. In view of the above arguments, Applicant respectfully requests that the Examiner withdraw the rejection of claim 7.

New Claims

Claims 9-15 have been added to more fully define the invention. Claims 9 and 12 depend from claim 1, claims 10, and 13-15 depend from claim 6 and claim 11 depends from claim 8. In view of the arguments above, new claims 9-15 are allowable at least because of their dependency. Additionally, claims 9-11 set forth that the “drive switching means comprises a drive switching solenoid” and that a first gear or gear train “is connected to said drive source when said solenoid is not energized.” Claims 9-11 are also allowable at least because none of the references cited by the Examiner teach or suggest this feature. Claims 12 and 15 set forth a rotary unit clutch which is not a one-way clutch and development clutch that is a one-way clutch. Claims 12 and 15 is further allowable at least because none of the cited references teach using one type of clutch to drive a developing device using one type of clutch and a rotary unit using a different type of clutch.

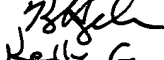
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Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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